Firefighter Mandatory
Practical Skill and Examination Handbook
Effective July 13, 2011

## Firefighter I Skills Firefighter Safety and Health

Respond to an incident, correctly mounting and dismounting an apparatus. ( $NFPA^{@}$  1001, 5.3.2)

#### **Directions**

For this skills evaluation checklist, students will correctly mount and dismount an apparatus for incident response. Students should follow the procedures appropriate for your department's particular apparatus and equipment.

#### **Equipment & Materials**

- Full protective clothing
- Fire apparatus

- Driver/operator for fire apparatus
- Hearing protection (if needed)

	Task Steps
1.	Don appropriate personal protective clothing.
2.	Mount apparatus using handrails and steps.
3.	Sit in a seat within the cab and fasten safety belt.
4.	Remain seated with safety belt fastened while vehicle is in motion.
5.	Unfasten safety belt and prepare to dismount when vehicle comes to a complete stop.
6.	Dismount apparatus using handrails and steps.

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Set up and operate in work areas at an incident using traffic and scene control devices. (NFPA® 1001, 5.3.3)

#### **Directions**

For this skills evaluation checklist, students will set up and operate in work areas at an incident using traffic and scene control devices. You should determine the area for students to set up and operate in for this skill.

#### **Equipment & Materials**

- control devices
- Traffic cones and scene
   Simulated traffic emergency scene
- Full protective clothing

	Task Steps	
1.	Don appropriate personal protective clothing.	
2.	Set up traffic cones and scene control devices appropriate to the assignment.	
3.	Set up established work areas.	
4.	Perform tasks as directed to complete the assignment.	
6.	Remove traffic cones and scene control devices.	

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#### **PPE and SCBA**

Don PPE and SCBA for use at an emergency (NFPA® 1001, 5.1.1.2, 5.3.1)

#### **Directions**

For this skills evaluation checklist, students will don personal protective equipment and SCBA. You should inform students of any time requirements for this skill. The NFPA® requires that protective clothing be donned in one minute. Separately, it also requires the SCBA to be donned in one minute. Prior to donning for time, students should place protective clothing in an accessible location.

The steps given in these skill sheets are general procedures for donning an SCBA. The specific SCBA manufacturer's recommendations for donning and use of the SCBA should always be followed. In addition, some department SOPs only allow seat-mounted SCBA or the facepiece to be donned upon arrival at the scene after the apparatus has stopped. Local procedures must be followed to ensure the safety of the firefighter. Specific steps for donning may vary by department according to local policy.

\*\*Students are required to perform one method of donning SCBA's for certification. Lead Instructors will communicate what method was utilized to the Lead Evaluator. The Lead Evaluator will ensure that this method is used during the skills evaluation. \*\*

#### **Equipment & Materials**

- Full protective clothing including SCBA
- SCBA storage case or compartment
- PASS device

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	Task Steps	
	Protective Clothing	
1.	Don pants and boots according to manufacturer's guidelines, which includes suspenders in place.	
2.	Don hood (may be down around the neck).	
3.	Don coat, with closure secure and collar up.	
4.	Don helmet.	
5.	Don gloves.	
6.	Donning completed within 1 minute.	

	Task Steps
	SCBA: Coat Method
1.	Position SCBA with the valve end of the cylinder toward the body.
2.	Open cylinder valve.
	a. Low pressure alarm sounds
	b. Valve fully open
	c. Cylinder at least 90% full
3.	Check cylinder and regulator pressure gauges.
	a. Pressure readings within 100 psi OR needles on both pressure gauges indicate same pressure
4.	Grasp the top of the left shoulder strap on the SCBA with the left hand and raise the SCBA overhead.
5.	Guide the left elbow through the loop formed by the left shoulder strap.
	a. Swing SCBA around left shoulder
6.	Guide the right arm through the loop formed by the right shoulder strap allowing the SCBA to come to rest in proper position.
7.	Fasten chest strap, buckle waist strap, and adjust shoulder straps.
8.	Don facepiece.
	a. Check facepiece seal

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Task Steps		
	SCBA: Coat Method	
	b. No air leakage	
9.	Connect air supply to facepiece.  a. Take normal breaths	
10.	Don hood, helmet and gloves.  a. No skin exposed  b. Donning completed within 1 minute	

## OR

	Task Steps
	SCBA: Over-the-Head Method
1.	Position the SCBA with the valve end of the cylinder away from the body.
2.	Open cylinder valve.  a. Low pressure alarm sounds  b. Valve fully open  c. Cylinder at least 90% full
3.	Check cylinder and regulator pressure gauges.  a. Pressure readings within 100 psi OR needles on both pressure gauges indicate same pressure
4.	Raise the SCBA overhead while guiding elbows into the loops formed by the shoulder straps.  a. Grasp both sides of the harness assembly
5.	Release the harness assembly and allow the SCBA to slide down the back.
6.	Fasten chest strap, buckle waist strap, and adjust shoulder straps.
7.	Don facepiece.  a. Check facepiece seal  b. No air leakage
8.	Connect air supply to facepiece.  a. Take normal breaths
9.	Don hood, helmet and gloves.

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	Task Steps
	SCBA: Over-the-Head Method
a.	No skin exposed
b.	Donning completed within 1 minute

### OR

	Task Steps	
	SCBA: Seat Mount Method	
1.	Open cylinder valve.	
	a. Low pressure alarm sounds	
	b. Valve fully open	
	c. Cylinder at least 90% full	
2.	Check cylinder and regulator pressure gauges.	
	a. Pressure readings within 100 psi OR needles on both pressure gauges indicate same pressure	
3.	Position body in seat with back firmly against the SCBA.	
	a. Release the SCBA hold-down device	
4.	Insert arms through shoulder straps.	
5.	Fasten chest strap, buckle waist strap and adjust shoulder straps.	
6.	Fasten seat belt before apparatus gets underway.	
7.	Don facepiece.	
	a. Check facepiece seal	
	b. No air leakage	
8.	Connect air supply to facepiece.	
	a. Take normal breaths	
9.	Don hood, helmet and gloves.	
	a. No skin exposed	
	b. Donning completed within 1 minute	

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Doff PPE and SCBA and prepare for reuse. (NFPA® 1001, 5.1.1.2)

Clean and sanitize PPE and SCBA. (NFPA® 1001, 5.5.1)

Inspect PPE and SCBA for use at an emergency incident. (NFPA $^{\otimes}$  1001, *5.5.1*)

#### **Directions**

For this skills evaluation checklist, students will doff personal protective equipment and SCBA, clean sanitize, inspect and prepare for reuse. For this skills evaluation checklist, students will clean and sanitize personal protective clothing and SCBA. Remember, each manufacturer has different guidelines for cleaning and sanitizing its equipment. Remind students to always read, follow, and understand the manufacturer instructions for the specific equipment they are using. If the inspection reveals damage or missing parts, students should notify the instructor, red tag the unit, and place it out of service.

#### **Equipment & Materials**

- Full protective clothing including
   Soft, lint-free towels **SCBA**
- SCBA storage case or compartment
- Cleaner-disinfectant solution recommended by manufacturer
- Out of service tags
- Obtain a copy of the manufacturer's guidelines for cleaning and care of protective clothing, including: helmet, gloves, bunker coat, bunker pants, protective hood and boots.

- 2-3 buckets, (example: 1 bucket for soapy water, 1 bucket for clear rinse, 1 bucket for disinfectant)
- Drying rack
- Obtain a copy of the manufacturer's guidelines for cleaning and care of SCBA unit.

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	Task Steps
	Doff and Inspect SCBA
1.	Remove SCBA.
2.	Close cylinder valve completely.
3.	Bleed air from high- and low-pressure hoses. Shut off PASS device.
4.	Check air cylinder pressure and replace cylinder if less than 90% of rated capacity.
5.	Return all straps, valves and components back to ready state.
4.	Identify all components of SCBA are present: harness assembly, cylinder, facepiece and PASS device.
5.	Inspect all components of SCBA for cleanliness and damage.
6.	If dirty components are found they are cleaned immediately. If damage is found, remove from service and report to officer.
7.	Check that cylinder is full (90%-100% of capacity).
8.	Open the cylinder valve slowly; verify the operation of the low air alarm and the absence of audible air leaks.
9.	If air leaks are detected, determine if connections need to be tightened or if valves, donning switch, etc. need to be adjusted. Otherwise SCBA with audible leaks due to malfunctions shall be removed from service, tagged, and reported to the officer.
10.	Check that gauges and/or indicators (i.e. heads-up display) are providing similar pressure readings. Manufacturer's guidelines determine the acceptable range.
11.	Check function (all modes) of PASS device.
12.	Don facepiece and check for proper seal.
13.	Don regulator and check function by taking several normal breaths.
14.	Check bypass and/or purge valve, if applicable.
15.	Prepare cleaning solution, buckets, etc. according to manufacturer's guidelines and departmental policies.
16.	Clean all components of SCBA unit according to manufacturer's guidelines and departmental policies.

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17.	After equipment is clean, inspect for damage.
	a. If damage is found, tag "out of service" and report information to officer
18.	Assemble components so they are in a state of readiness.
19.	Place all components in a manner and location so that they will dry.

	Task Steps
	Doff PPE
1.	Remove protective clothing.
2.	Inspect PPE for damage and need for cleaning.
3.	Clean dirty components as necessary.  a. Remove from service if damage found  b. Report damage to officer
4.	Place protective clothing in a manner so that they can be accessed quickly for donning in the event of a reported emergency.

	Task Steps	
	Clean Personal Protective Clothing (Structural Firefighting) (Explain)	
1.	Clean all articles of protective clothing according to manufacturer's guidelines.	
2.	Place all equipment in a manner and location so that it will dry.	
3.	After equipment is dry, inspect for damage and place in a state of readiness.	
	a. If damage is found, equipment is tagged "out of service" and officer notified	

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Perform emergency operations procedures for an SCBA. *(NFPA® 1001, 5.3.1)* 

#### **Directions**

For this skills evaluation checklist, students will practice controlling their breathing rate and operating SCBA in the event of a failure of the regulator. Please refer to manufacturer's guidelines for exact procedures. This is a physical and mental skill. The idea is to focus on one technique that works for students and slow their breathing rate, which will extend the time they will have protection if they become trapped or disoriented in a hazardous atmosphere. Each student should practice this technique without their SCBA, and then don SCBA and practice. Finally each student should be placed in an area where their visibility is obstructed and lie down on floor and practice this technique for an extended period of time. Inform students that they and a partner are performing a primary search when the student realizes that air supply has suddenly stopped.

\*\*This skill is to be accomplished in an obscured visibility environment using either simulated smoke, total darkness or facepiece covers. \*\*

#### **Equipment & Materials**

- Full protective clothing and SCBA Portable radios
- Limited visibility situation (simulated smoke or facepiece covers)

	Task Steps
	Controlled Breathing Techniques
1.	Demonstrate a controlled breathing technique or skip breathing technique for two minutes.

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	Task Steps	
	Emergency Operations of SCBA	
1.	Check regulator and open bypass valve. Close mainline if applicable.	
2.	Check main cylinder valve and verify it is fully opened.	
3.	Check remote gauge or indicators, if applicable.	
	When steps 1-3 do not correct problem, firefighter proceeds to Step 4.	
4.	Use bypass valve to breathe.	
5.	Communicate with partner about situation and ask partner to call Mayday.	
6.	Activate "alarm" mode on PASS device after Mayday is called.	
7.	Locate hoseline or guideline	
8.	As a team, follow handline or guideline and exit hazardous atmosphere quickly.	
9.	Notify officer of situation after exiting building.	
10.	Doff SCBA, tag unit, and remove from service.	

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#### Exit a constricted opening while wearing standard SCBA. (NFPA® 1001, 5.3.9)

#### **Directions**

For this skills evaluation checklist, students will practice exiting a constricted passage while wearing SCBA. Students must be familiar with the specific SCBA that your department uses. Remind students to always follow the instructor's directions and all safety procedures of your organization. You should give students a scenario that forces them to pass through a restricted opening to exit a hazardous atmosphere. This is an extreme situation and is meant to teach students the ability to call a mayday and attempt to rescue themselves. Remind students to remain calm, think about their options and slowly negotiate obstacle.

This is a skill that is simulating extreme conditions. Some manufacturers do not recommend loosening parts of the SCBA harness or removing the backpack completely.

For the purposes of this skill it is recommended that a standard stud wall be used to teach this skill. The studs should be spaced 16 inches (406 mm) on center. Have the students pass through this type of opening to practice this skill.

#### \*\*This skill is to be accomplished in an obscured visibility environment using either simulated smoke, total darkness or facepiece covers\*\*

#### **Equipment & Materials**

- for two firefighters
- Handheld radios
- Full protective clothing and SCBA
   Obstacle course with constricted passage/exit

	Task Steps	
1.	Don personal protective clothing and SCBA before entering hazardous atmosphere.	
2.	Enter and negotiate obstacle course to the narrow passage or constricted exit.	
	a. Maintain contact with wall or guideline/hoseline and team member (loud and	

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	clear communications)
	b. Lead team member: Feel ahead with hand and tool
3.	Reduce profile and attempt to pass through restriction.
4.	<ul> <li>If unable to pass, notify Command of situation.</li> <li>a. Call a Mayday and communicate with Command: (LUNAR) location, unit, name, assignment, resources needed</li> <li>b. Activate PASS device in "alarm" mode after communicating with Command</li> </ul>
5.	If unable to pass, loosen parts of the SCBA harness or remove backpack completely as necessary.
6.	Pass through restricted opening while maintaining protection of full PPE.
7.	Place SCBA back in correct position.
8.	Exit hazardous atmosphere and notify Command when safe.
9.	Doff SCBA and PPE when clear of hazardous atmosphere.

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### **Rescue/Extrication**

### Conduct a primary search. (NFPA® 1001, 5.3.9)

#### **Directions**

For this skills evaluation checklist, students will conduct a primary search. Students must work with other students as a team during this skill. Remind students to always follow the policies and procedures of your organization.

#### **Equipment & Materials**

- Full protective clothing with SCBA
- Building to be searched

	Task Steps	
	Conduct a Primary Search	
1.	Confirm order with officer to conduct primary search.	
	a. Establish search pattern to be used	
2.	Size up structure to be searched.	
	a. Hazards present	
	b. Construction type and features	
	c. Potential escape routes	
	d. Fire and smoke conditions	
3.	Search the structure using established search pattern.	
	a. Cursory search of likely victim areas	
	b. Call out for victims	
	c. Maintain team integrity and communication	
	d. Work from fire area to exterior	
	e. Maintain situational awareness	
4.	Identify rooms that have been searched.	
5.	Remove any victims.	
	a. Inform officer of victim(s)	

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6.	Exit building when search is complete or when conditions dictate.
7.	Report to officer completion of primary search.
8.	List considerations and steps necessary to complete a secondary search.

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Exit a hazardous area. (NFPA® 1001, 5.3.5)

#### **Directions**

For this skills evaluation checklist, students will exit a hazardous area. Students must work together as a team to complete this skill.

\*\*This skill is to be accomplished in an obscured visibility environment using either simulated smoke, total darkness or facepiece covers\*\*

#### **Equipment & Materials**

- Full protective clothing with
   Smoke Machine **SCBA**
- Area or structure to be exited

	Task Steps
1.	Size up environment.
	a. Hazards present
	b. Changing conditions
	c. Status of team
2.	Determine that immediate exit by team is required.
	a. Immediate threat to life safety exists
	b. Communicate need to exit to team members
3.	Exit structure or hazardous area following guideline or hose.
	a. Maintain team integrity and communication
	b. Maintain situational awareness
	c. Monitor level of breathing air in SCBA cylinder
4.	Move to safe area after exiting structure or hazardous area.
	a. Maintain use of SCBA and PPE while hazards are present
5.	Notify officer of situation using local procedures.
	a. Request assistance if required

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### **Forcible Entry**

Clean, inspect, and maintain hand/power tools and equipment. (NFPA® 1001, 5.5.1)

#### **Directions**

For this skills evaluation checklist, students will clean, inspect, and maintain various hand tools. Every department has unique tools and equipment. This is merely a basic guide to common procedures. Tools needing maintenance will be placed on a salvage cover. Students should select one tool at a time and clean and dry each tool thoroughly before proceeding to inspection and maintenance so that the cleaning can reveal any maintenance needs. Remind students to always follow the manufacturer's instructions when using any equipment.

#### **Equipment & Materials**

- Personal protective clothing (may include hearing and eye protection)
- Salvage cover
- Maintenance tools such as files, wrenches, screwdrivers, hammers, etc.
- Cutting tools
- Maintenance supplies
   appropriate for the types of tools
   used, such as: steel wool,
   sandpaper, machine oil,
   lubricating oil, mild detergent,
   degreaser, shop towels, boiled
   linseed oil (wooden handles),
   paint, brushes, scrub pads,
   buckets, water.
- Pushing/pulling tools

Striking tools

- Prying tools
- Appropriate equipment operation
   and service manuals
- Gas powered positive pressure fan or portable power plant

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## **Skills Evaluation Checklist**

	Hand Tool Task Steps	
	Tool Cleaning	
1.	Wash tools with mild detergent or per manufacturer's guidelines. Rinse and wipe dry.	
	a. Do not soak wooden handles in water because it will cause the wood to swell	
	Tool Inspection	
2.	Inspect tool handles for cracks, splinters, or other damage.	
3.	Inspect tool head for tightness.	
4.	Inspect working surface for dullness, damage, chips, cracks, or metal fatigue.	
5.	Notify officer of any problems identified so that corrective actions can be taken.	

#### And

	Power Tool Task Steps	
	Tool Cleaning	
1.	Clean tools according to manufacturer's guidelines.	
	Tool Inspection	
2.	Inspect tools for damage.	
3.	Inspect parts for tightness and function.	
	a. Ensure that all guards are functional and in place.	
	b. Check all electrical components for cuts or other damage.	
4.	Inspect working surface for damage or wear.	
	Tool Maintenance	
5.	Change a cutting blade on a power tool.	
	a. Check blades for damage or wear.	
	b. Replace blades that are damaged or worn.	
6.	Check fuel level in all power tools and fill as necessary.	
	a. Use correct fuel type.	
	b. Ensure that fuel is fresh.	

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7.	Check oil level in all tools and fill as necessary.
8.	Start all power tools and keep them running.
	a. Ensure power tools will start manually.
	b. Ensure battery packs are fully charged.
9.	Tag a tool that is out of service.
	a. Place appropriate notification on the tool.
	b. Communicate the situation with officer.

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## Force entry through an inward-swinging door — Two-firefighter method ( $NFPA^{@}$ 1001, 5.3.4)

#### **Directions**

For this skills evaluation checklist, students will force entry through an inward-swinging door using the two-firefighter method. Although various forcible entry tools can be used to force doors, this skill sheet uses the Halligan bar and flat head axe.

#### **Equipment & Materials**

- Appropriate protective clothing (safety goggles and/or face shield)
- Flat head axe

Halligan bar

 Locking pliers, chain and/or utility rope (optional)

	Task Steps
1.	Assemble all necessary tools and equipment
2.	Transport tools to the entry location and prepare for use
3.	Firefighter #2: Checks door for heat and ensures it is safe to enter.
4.	Firefighter #1: Place the fork of a Halligan bar just above or below the lock with the bevel side of the fork against the door.
5.	Firefighter #1: Angle the tool slightly up or down.
6.	Firefighter #2: Strike the tool with the back side of a flat-head axe.
7.	Firefighter #2: Drive the forked end of the tool past the interior doorjamb.
8.	Firefighter #1: Move the bar slowly perpendicular to the door being forced to prevent the fork from penetrating the interior doorjamb.
9.	Firefighter #1: Make sure the fork has penetrated between the door and the doorjamb.
10.	Firefighter #1: Exert pressure on the tool toward the door, forcing it open.

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Force entry though an outward-swinging door — Wedge-end method. (NFPA $^{\otimes}$  1001, 5.3.4)

#### **Directions**

For this skills evaluation checklist, students will force entry through an inward-swinging door using the wedge-end method. Although various forcible entry tools can be used to force doors, this skill sheet uses the Halligan bar and flat head axe.

#### **Equipment & Materials**

- Appropriate protective clothing (safety goggles and/or face shield)
- Flat head axe

Halligan bar

 Locking pliers, chain and/or utility rope (optional)

	Task Steps
1.	Assemble all necessary tools and equipment
2.	Transport tools to the entry location and prepare for use
3.	Firefighter #2: Checks door for heat and ensures it is safe to enter.
4.	Firefighter #1: Place the wedge end of the Halligan bar just above or below the lock.
	a. If there are two locks, place the wedge between the locks
5.	Firefighter #2: Strike the tool using a flat-head axe on the surface behind the wedge, driving the wedge into the space between the door and the jamb.
6.	Firefighter #1: Pry down and out with the fork end of the tool.  a. Make sure the wedge is sufficiently driven into the space

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### Force entry through a window (glass pane). (NFPA® 1001, 5.3.4)

#### **Directions**

For this skills evaluation checklist, students will force entry through a window. This skill covers only typical window construction that has glass panes. Remind students to never break glass with their hands, gloved or ungloved. Also, remind students firefighters should take special precautions when breaking windows above the ground floor to prevent falling glass hazards to citizens and firefighters below. When forcing entry into a fire building, firefighters must wear SCBA. Therefore, it is recommended that students wear SCBA for this training exercise.

\*\*Other materials may be simulated in the place of glass as long as the material is fastened to the window prop and will produce a similar affect as breaking glass. Possible solutions can be Saran® wrap, Styrofoam® or wood attached by Velcro strips. \*\*

#### **Equipment & Materials**

- Protective clothing and SCBA
- Forcible entry prying tool

Window prop

	Task Steps
1.	Assemble all necessary tools and equipment
2.	Transport tools to the entry location and prepare for use
3.	Size up the situation. a. Try window first b. Evaluate window construction and locking method
4.	Break the window glass. a. (Multiple-paned window) Lowest pane of glass b. (Single-paned window) At top of pane c. To avoid losing control of the tool, do not use excessive force d. Keep hands and the tool handle above the point of impact e. Use the tool to clean all the broken glass out of the frame once the glass has been broken

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Carry a ladder: One-firefighter low-shoulder method. *(NFPA® 1001, 5.3.6)* 

#### **Directions**

For this skills evaluation checklist, students will carry a ladder using the one-firefighter low-shoulder method. Students should carry the ladder at least 20 feet (6 m). When lifting a ladder from the ground, remind students to use the proper technique to avoid back strain or injury.

#### **Equipment & Materials**

One 14-foot (4.3 m) single (wall)
 Protective clothing ladder or one 24-foot (8 m)
 extension ladder

	Task Steps
1.	Position yourself at lifting point near the center of the ladder.
2.	Kneel beside the ladder.  a. At lifting point  b. Facing ladder butt  c. On knee closest to ladder
3.	Grasp the ladder rung opposite your knee.  a. With hand closest to ladder  b. Palm forward
4.	Stand the ladder on edge.
	a. Pivot on nearer beam, raising farther beam
5.	Stand up.
	a. Use leg muscles, keeping back straight and vertical
6.	Reposition yourself for carrying.
	a. As ladder is brought up
	b. Pivot toward tip of ladder
	c. Insert other arm through rungs
7.	Position ladder for carrying.

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a. Upper beam resting on shoulder
b. Tip lowered slightly
c. Steadied with both hands

8. Lower the ladder to the ground.
a. Reversing lifting procedure
b. Body and toes parallel to ladder

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Carry a ladder: Two-firefighter low-shoulder method. (NFPA® 1001, 5.3.6)

#### **Directions**

For this skills evaluation checklist, students will carry a ladder using the two-firefighter low-shoulder method. Students should carry the ladder at least 20 feet (6 m). When lifting a ladder from the ground, remind students to use the proper technique to avoid back strain or injury.

#### **Equipment & Materials**

 One 24-foot (8 m) extension or single ladder

#### **Skills Evaluation Checklist**

NOTE: Firefighter #1 is located near the butt end of the ladder. Firefighter #2 is located near the tip of the ladder.

	Task Steps	
1.	Both Firefighters: Kneel on the same side of the ladder facing the tip.	
2.	Both Firefighters: Gasp a convenient rung with the near hand, palm forward.	
3.	Both Firefighters: Stand the ladder on edge.	
4.	Firefighter #1: Give the command to "shoulder the ladder."	
5.	Both Firefighters: Stand, using the leg muscles to lift the ladder.	
6.	Both Firefighters: Tilt the far beam upward as the ladder and the firefighters rise.	
7.	Both Firefighters: Pivot and place the free arm between two rungs.	
	a. Both firefighters facing the butt	
	b. Lifting smoothly and continuously	
8.	Both Firefighters: Place the upper beam on the shoulders.	

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Tie the halyard. (NFPA® 1001, 5.3.6)

#### **Directions**

For this skills evaluation checklist, students will tie the halyard.

### **Equipment & Materials**

Extension ladder

Task Steps	
1.	Wrap the excess halyard around two convenient rungs.
2.	Pull the halyard taut.
3.	Hold the halyard between the thumb and forefinger with the palm down.
4.	Turn the hand palm up.
5.	Push the halyard underneath and back over the top of the rung.
6.	Grasp the halyard with the thumb and fingers.
7.	Pull it through the loop, making a clove hitch or other approved knot.
8.	Finish the tie by making a half hitch or overhand safety on top of the knot.

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Raise a ladder: One-firefighter method. (NFPA® 1001, 5.3.6)

#### **Directions**

For this skills evaluation checklist, students will raise a ladder using the one-firefighter method. This skill sheet covers steps for both the single ladder and the extension ladder. Students should carry the ladder to the desired location for the raise.

#### **Equipment & Materials**

10-14 foot (3-4 m) roof or single
 Protective clothing ladder

Task Steps		
	Single Ladder	
1.	Visually inspect the work area.	
	a. Terrain for solid, level footing	
	b. Overhead for electrical wires and obstructions	
2.	Lower the ladder butt to the ground.	
	a. Butt spurs against building wall	
3.	Position yourself to raise the ladder.	
	a. Grasp rung in front of your shoulder with free hand	
	b. Remove other arm from between the rungs	
	c. Step beneath ladder and grasp convenient rung with free hand	
4.	Bring the ladder upright until it rests against the building.	
	a. Advance hand-over-hand	
	b. Toward the butt	
5.	Carefully move the ladder butt out from the building to the desired climbing	
	angle.	
	a. Push against an upper rung	
	b. Pull a lower rung	
6.	Lower the ladder, reversing the raising procedure.	

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Raise a ladder: Two-firefighter flat raise. (NFPA® 1001, 5.3.6)

#### **Directions**

For this skills evaluation checklist, students will raise a ladder using the twofirefighter flat raise. Students should carry the ladder to the desired location for the raise.

#### **Equipment & Materials**

Extension ladder
 Protective clothing

#### **Skills Evaluation Checklist**

**NOTE:** Firefighter #1 is located near the butt end of the ladder. Firefighter #2 is located near the tip end of the ladder.

	Task Steps
1.	Firefighter #1: Place the butt end on the ground.
2.	Firefighter #2: Rest the ladder beam on a shoulder.
3.	Firefighter #1: Heel the ladder by standing on the bottom rung.
4.	Firefighter #1: Crouch down to grasp a convenient rung or the beams with both hands.
5.	Firefighter #1: Lean back.
6.	Firefighter #2: Step beneath the ladder.
7.	Firefighter #2: Grasp a convenient rung with both hands.
8.	Firefighter #2: Advance hand-over-hand down the rungs toward the butt end until the ladder is in a vertical position.
9.	Firefighter #1: Grasp successively higher rungs or higher on the beams as the ladder comes to a vertical position until standing upright.
10.	Both Firefighters: Face each other.
11.	Both Firefighters: Heel the ladder by placing toes against the beams.
12.	Firefighter #1: Grasp the halyard.
13.	Firefighter #1: Extend the fly section with a hand-over-hand motion until the tip reaches the desired elevation. Engage the ladder locks.
14.	Firefighter #2: Grasp the beams.

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15.	Both Firefighters: Lower the ladder gently onto the building.
	a. Place one foot against a butt spur or on the bottom rung
16.	Both firefighters: Tie the halyard.

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Deploy a roof ladder: One-firefighter method. (NFPA® 1001, 5.3.6)

#### **Directions**

For this skills evaluation checklist, students deploy a roof ladder using the one-firefighter method.

### **Equipment & Materials**

Single or extension ladder

Building

Roof ladder

• Life safety harness (optional)

Protective clothing

•

	Task Steps	
1.	Set the roof ladder down.	
2.	Open the hooks.	
3.	Face the hooks outward.	
4.	Tilt the roof ladder up so that it rests against the other ladder.	
5.	Climb the main ladder until your shoulder is about two rungs above the midpoint of the roof ladder.	
6.	Reach through the rungs of the roof ladder.	
7.	Hoist the ladder onto the shoulder.	
8.	Climb to the top of the ladder.	
9.	Lock into the ladder using a leg lock or life safety harness.	
10.	Take the roof ladder off the shoulder.	
11.	Use a hand-over-hand method to push the roof ladder onto the roof.	
12.	Push the roof ladder up the roof until the hooks go over the edge of the peak and catch solidly.	

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### **Ventilation**

### Ventilate a pitched roof (NFPA® 1001, 5.3.12)

#### **Directions**

For this skills evaluation checklist, students will ventilate a pitched roof a flat roof and a basement. The procedures for opening pitched roofs are similar to those for opening flat roofs, but additional precautions must be taken to prevent slipping.

#### **Equipment & Materials**

- Full protective clothing including
   Pike pole SCBA
- Pitched training roof
- Pick-head axe or power saw

Extension ladder

• Flat training roof or surface

Basement

Fan

	Task Steps — Pitched Roof
1.	Confirm order with officer to ventilate pitched roof.
2.	Size up scene for any hazards.
3.	<ul> <li>Select location for ventilation.</li> <li>a. Position upwind of planned ventilation opening</li> <li>b. Sound for roof integrity</li> <li>c. Place ventilation opening in safe working area as close to fire as feasible and high on the roof</li> </ul>
	<ul><li>d. Avoid placing opening near roof mounted equipment</li><li>e. Assemble and transport all necessary tools and equipment for the task assigned.</li></ul>
4.	Outline ventilation opening with pick on axe or other similar tool.  a. Must be at least 4' x 4' (1.2 m by 1.2 m) opening  b. Remove gravel, tiles, or other materials that may limit ability to cut opening

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	Task Steps - Pitched Roof
5.	<ul> <li>Cut roof deck across the rafters on the high side of the roof parallel to the ridge.</li> <li>a. Cut is at least 4' (1.2 m) long or three rafters wide – inside 1st rafter, over 2nd rafter and inside 3rd rafter.</li> <li>b. Cut is completely through decking material but not through structural framing</li> <li>c. Maintain situational awareness</li> </ul>
6.	Cut roof deck on furthest side of ventilation opening perpendicular to the cut made in Step 5.  a. Begin cut at top of roof and work downward  b. Cut is at least 4' (1.2 m) long inside rafter #1  c. Cut is completely through decking material  d. Maintain situational awareness
7.	Cut roof deck on opposite side of cut made in Step 6.  a. Begin cut at top of roof and work downward  b. Cut is at least 4' (1.2 m) long inside rafter #3  c. Cut is completely through decking material  d. Maintain situational awareness
8.	Complete the ventilation opening by cutting between the bottom of the two parallel cuts made in Steps 6 and 7.  a. Cut is completely through decking material  b. Maintain situational awareness
9.	Remove decking from the ventilation opening with axe or pike pole.  a. Keep decking out of ventilation opening  b. Size up fire conditions in the roof space
10.	Plunge down through the ceiling using pike pole working from upwind side of ventilation opening.
11.	Report to officer completion of assigned task.

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Ventilate a structure using horizontal hydraulic ventilation. (NFPA $^{\otimes}$  1001, 5.3.11)

Ventilate a structure using mechanical positive-pressure ventilation. (NFPA® 1001, 5.3.11)

#### **Directions**

For this skills evaluation checklist, students will demonstrate hydraulic ventilation. This skill requires a fire fighting team in full protective clothing and SCBA working together. You should inform team members of their positions. You may have each team member rotate hose positions until each team member has operated the hose nozzle to perform hydraulic ventilation.

Provide students with the following information:

- You are inside a room within a structure where you have extinguished a fire involving room and contents only.
- The ventilation crew has been unsuccessful.
- We need to ventilate this room with our hoseline.
- Find a window or door and open it.

#### **Equipment & Materials**

- Full protective clothing including
   Smoke-filled training structure
   SCBA
- Charged hoseline with fog nozzle

	Task Steps - Hydraulic Ventilation
1.	Confirm order with officer to perform horizontal hydraulic ventilation.
2.	Assemble and transport all necessary equipment.
3.	Extend nozzle outside of opening and open nozzle. Set the fog nozzle pattern wide enough to cover 85 to 90 percent of window or door opening. Bring nozzle approximately 2 feet (0.6 m) inside building.
4.	Monitor progress of ventilation.

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#### **Directions**

For this skills evaluation checklist, students will demonstrate mechanical positivepressure ventilation. This skill requires two to three firefighters in full protective clothing and SCBA working together. Other factors such as search and rescue, fire control procedures, etc., will dictate when and how PPV should be applied. Remind students to always follow manufacturer's instructions for any equipment used.

You should direct firefighters to perform positive pressure ventilation on a structure. Provide the following information to students:

- Point of entry to use
- Location/seat of the fire
- Possible exit openings to use
- No other operations are going on inside the structure
- Forcible entry has occurred

#### **Equipment & Materials**

- Full protective clothing including
   Smoke-filled training structure **SCBA**
- One or two PPV fans
- Charged hoseline
- Forcible entry tools as applicable

	Task Steps PPV
1.	Confirm order with officer to ventilate structure.
2.	Place fan near entrance opening so that it will create a positive pressure within the structure.
3.	Start fan(s) and temporarily direct away from opening.
4.	Create exit opening approximately equal to or smaller than the "point of entry."
5.	Direct fan into point of entry so that cone of air covers opening.
6.	Determine if smoke is moving away from point of entry and toward exit. If not, discontinue use of fan and revaluate location of point of entry and exit and any obstructions of the flow of air.
7.	Clear smoke out of building.

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### **Water Supplies**

\*Note\* Students must complete the requirements for either hydrant operations (skill sheets M-46a and M-46b) or static water source operations (skill sheet M-47a) depending upon AHJ capabilities and protocols.

Operate a hydrant. (NFPA® 1001, 5.3.15)

#### **Directions**

For this skills evaluation checklist, students will operate a hydrant. When operating a hydrant, remind students to follow the basic safety precautions given below.

- Tighten caps on outlets not used.
- Do not stand in front of closed caps.
- Do not lean over top of operating hydrant.
- Close hydrant slowly.
- Check downstream drainage.
- Do not flow without adequate drainage.
- Do not flow across a busy street.
- Do not flow onto street in freezing weather.
- Control pedestrian and vehicle traffic as necessary.

#### **Equipment & Materials**

- Spanner or hydrant wrench
- Fire hydrant

#### **Skills Evaluation Checklist**

#### **Task Steps**

- 1. As a safety precaution, tighten hydrant outlet caps that will not be used.
  - a. Turn caps clockwise
  - b. Use spanner or hydrant wrench

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2. Turn outlet nut counterclockwise and remove the cap from one outlet. a. Stand clear of closed caps Open the hydrant. 3. a. Use spanner or hydrant wrench to slowly turn hydrant nut counterclockwise b. Continue until fully open c. Stand clear of closed caps d. Do not lean over top of hydrant Close the hydrant. 4. a. Use spanner or hydrant wrench to slowly turn hydrant nut clockwise b. Continue until fully closed c. Stand clear of closed caps 5. Replace cap on outlet. a. Turn outlet nut clockwise until firmly closed b. Stand clear of closed caps

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## Connect to a hydrant using a forward lay. (NFPA® 1001, 5.5.2)

#### **Directions**

For this skills evaluation checklist, students will make soft-sleeve hydrant connections and complete a forward lay. When performing this skill, firefighters generally work with a driver/operator.

#### **Equipment & Materials**

- Soft-sleeve hose
- -h
- Spanner or hydrant wrench
- Protective clothing

Rubber mallet

 4½-inch (114 mm) to ½-inch (64 mm) reducer coupling (if hydrant has only ½-inch (64 mm) outlets)

	Task Steps	
	Soft-sleeve Connection (Hand Lay Firefighter)	
1.	Confirm order with officer to make hydrant connection.	
2.	Remove necessary equipment from the pumper.	
	a. Hydrant or spanner wrench	
	b. Reducer (if necessary)	
	c. Rubber mallet, if needed	
3.	Remove the hydrant cap by turning it counterclockwise and using a spanner wrench if the cap is tight.	
4.	Inspect the hydrant for exterior damage and check for debris or damage in inside outlet.	
5.	Place the hydrant wrench on hydrant nut with handle pointing away from outlet.	
6.	Ensure the supply hose has all necessary adapters to make the connection attached.	
7.	Remove the intake hose from the pumper.	
8.	Connect the intake hose to the pump intake, turning clockwise and making hand tight.	

9.	Stretch the intake hose to the hydrant, placing two full twists in the hose to prevent kinking.
10.	Make the hydrant connection to steamer outlet or outlet with adapter, turning clockwise and making hand tight.
11.	Open the hydrant slowly until hose is full.
12.	Tighten any leaking connections using rubber mallet or spanner wrench.

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## Deploy a portable water tank. (NFPA® 1001, 5.3.15)

#### **Directions**

For this skills evaluation checklist, students will deploy a portable water tank. This skill sheet is written for a jet siphon. A plain siphon, commercial tank-connecting device, permanent tank gravity drain, drain tunnel connector or low level strainer may also be used. Remind students to always follow the manufacturer's instructions for the specific equipment they are using. Students will work with another student to perform this skill. After actual use, the tarps, tanks, and siphons will be wet and dirty. They must be cleaned and dried before storage.

### **Equipment & Materials**

- Apparatus-mounted portable reservoirs
- Siphon and appropriate siphon hose/tubing or other means of transferring water from one tank to another
- Reservoir manufacturer's setup instructions
- Two heavy tarps

Protective clothing

	Task Steps
1.	Remove the tarps from the apparatus.
2.	Carry the tarps to the planned location for the water reservoirs.  a. Location provides easy access from multiple directions  b. Location allows other apparatus access to the fire scene
3.	Open the tarps and spread them flat on the ground.
4.	Remove the portable tank, jet siphon or low level strainer, and manufacturer's setup instructions from the apparatus.  a. Use proper lifting techniques  b. Carry to the setup location
5.	Set up two portable tanks (if two are available).  a. Follow the manufacturer's instructions

6.	Connect the intake and discharge hoses to the jet siphon or low level strainer per manufacturer's instructions.
7.	Position the jet siphon properly to draw and discharge water, per manufacturer's instructions (if necessary).
8.	Dismantle the portable tanks.
	a. Follow manufacturer's instructions
9.	Shake and fold the tarps.
10.	Return equipment to the proper storage locations on the apparatus.

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#### Hose

## Inspect, clean and maintain hose. (NFPA® 1001, 5.5.2)

#### **Directions**

For this skills evaluation checklist, students will inspect and maintain hose. Remind students that they should always follow any manufacturer recommendations.

### **Equipment & Materials**

Protective clothing

- Warm water and mild soap or detergent solution
- Stiff-bristled scrub brushes
- Used hose to be cleaned

Broom

#### .

	Task Steps	
	Hand Cleaning	
1.	Clean the coupling swivels of dirt and other foreign matter by submerging in warm, soapy water and working forward and backward.	
2.	Clean the male threads if clogged with tar, asphalt, or other foreign material with stiff-bristled scrub brush or wire brush.	
3.	Inspect hose couplings.	
4.	Brush the length of the hose of accumulated dust and dirt one area at a time with a broom.	
5.	Wash areas of hose that contain dirt not removed by brushing with hose and clear water.	
6.	Scrub areas of hose that have been exposed to oil or grease with scrub brush and mild soap or detergent until all oil or grease is removed.	
7.	Rinse the hose thoroughly with clear water.	
8.	Inspect the hose for any remaining grease or oil stains or for frayed, snagged, or worn areas.	

9.	Dry the hose out of the sun.
10.	Roll and store the hose after it has dried per departmental SOP.

	Task Steps Yes	No
	Inspect Hose and Couplings	
1.	Inspect the male, female and Stortz couplings.	
	a. Ensure they swivel freely (if applicable)	
	b. Check gaskets and replace as necessary	
	c. Record and report finding per department policy	
2.	Inspect hose.	
	a. Check for frays, burns, chemical exposure, holes etc	
	b. Mark all defective hose per department policy and remove from service	
	c. Record and report findings per department policy	

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Make a straight hose roll. (NFPA® 1001, 5.5.2)

#### **Directions**

For this skills evaluation checklist, students will make a straight hose roll.

## **Equipment & Materials**

Hose to be rolled

	Task Steps	
1.	Lay out the hose straight and flat on a clean surface.	
2.	Roll the male coupling over onto the hose to start the roll. Form a coil that is open enough to allow the fingers to be inserted.	
3.	Continue rolling the coupling over onto the hose, forming an even roll. Keep the edges of the roll aligned on the remaining hose to make a uniform roll as the roll increases in size.	
4.	Lay the completed roll on the ground.	
5.	Tamp any protruding coils down into the roll with a foot.	

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Couple a hose. *(NFPA® 1001, 5.3.10)* 

Uncouple a hose. (NFPA® 1001, 5.3.10)

#### **Directions**

For this skills evaluation checklist, students will couple and uncouple a hose. In the two-firefighter method students will work with another student to complete the skill. Inform each student of their position.

### **Equipment & Materials**

Hose

	Task Steps	
	Foot-Tilt Method	
1.	Stand facing the two couplings so that one foot is near the male end.	
2.	Place a foot on the hose directly behind the male coupling.	
3.	Apply pressure to tilt it upward.	
4.	Grasp the female end by placing one hand behind the coupling and the other hand on the coupling swivel.	
5.	Bring the two couplings together, and turn the swivel clockwise with thumb to make the connection.	

	Couple a Hose Task Steps	
	Two-Firefighter Method	
1.	Firefighter #1: Grasp the male coupling with both hands.	
2.	Firefighter #1: Bend the hose directly behind the coupling.	
3.	Firefighter #1: Hold the coupling and hose tightly against the upper thigh or midsection with the male threads pointed outward.	
4.	Firefighter #2: Grasp the female coupling with both hands.	
5.	Firefighter #2: Bring the two couplings together, and align their positions.	

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- 6. Firefighter #2: Turn the female coupling counterclockwise until a click is heard. This indicates that the threads are aligned.
  - 7. Firefighter #2: Turn the female swivel clockwise to complete the connection.

	Task Steps	
	Knee-Press Method	
1.	Grasp the hose behind the female coupling.	
2.	Stand the male coupling on end.	
3.	Set feet well apart for balance.	
4.	Place one knee upon the hose and shank of the female coupling.	
5.	Snap the swivel quickly in a counterclockwise direction as body weight is applied to loosen the connection.	

	Uncouple a Hose Task Steps	
	Two-Firefighter Method	
1.	Both Firefighters: Take a firm two-handed grip on respective coupling and press the coupling toward the other firefighter, thereby compressing the gasket in the coupling.	
2.	Both Firefighters: Keep arms stiff, and use the weight of both bodies to turn each hose coupling counterclockwise, thus loosening the connection.	

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## Make the preconnected flat hose load. (NFPA® 1001, 5.5.2)

#### **Directions**

For this skills evaluation checklist, students will make the preconnected flat hose load.

## **Equipment & Materials**

Hose to be loaded

Nozzle

Hose bed

	Task Steps
1.	Attach the female coupling to the discharge outlet.
2.	Lay the first length of hose flat in the bed against the side wall.
3.	Angle the hose to lay the next fold adjacent to the first fold and continue building the first tier.
4.	Make a fold that extends approximately 8 inches (200 mm) beyond the load at a point that is approximately one-third the total length of the load. This loop will later serve as a pull handle.
5.	Continue laying the hose in the same manner, building each tier with folds laid progressively across the bed.
6.	Make a fold that extends approximately 14 inches (350 mm) beyond the load at a point that is approximately two-thirds the total length of the load. This loop will also serve as a pull handle.
7.	Complete the load.
8.	Attach the nozzle and lay it on top of the load.

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Advance the preconnected flat hose load. (NFPA® 1001, 5.3.10) Advance a line into a structure. (NFPA® 1001, 5.3.10)

#### **Directions**

For this skills evaluation checklist, students will advance the preconnected flat hose load and advance a line into a structure.

### **Equipment & Materials**

- Preconnected flat hose load
   Protective clothing and SCBA

	Task Steps
1.	Put one arm through the longer loop.
2.	Grasp the shorter pull loop with the same hand.
3.	Grasp the nozzle with the opposite hand.
4.	Pull the load from the bed using the pull loops.
5.	Walk toward the fire.
6.	Proceed until the hose is fully extended.
7.	Conduct visual size up of scene to identify hazards.
8.	Start airflow in SCBA before approaching structure entrance or entering smoke environment.
9.	Advance the hose to building entrance but do not enter the building. Size up environment to identify hazards. Approach door from side opposite hinges.
10.	Direct driver/operator to charge hoseline.
11.	Set the desired nozzle pattern and bleed air from hoseline.
12.	Confirm readiness to enter structure with officer.
13.	Enter the structure while staying low and maintaining spacing.
14.	Maintain situational awareness of the environment and fire conditions.

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Advance a line up and down an interior and exterior stairway. (NFPA $^{\otimes}$  1001, 5.3.10)

#### **Directions**

For this skills evaluation checklist, students will advance a line up and down an interior stairway. Students must work with other students and a driver/operator to complete this skill. Inform each student of their position.

\*\*If an organization does not have a suitable 2 story structure, this skill can be accomplished using a suitable prop such as the FF Safety and Survival prop.\*\*

### **Equipment & Materials**

- Full protective clothing including
   Structure with interior stairs
   SCBA
- 1½-inch (38 mm) or larger hoseline

	Task Steps	
	Up Stairs (Uncharged Hoseline)	
1.	Confirm order with officer to advance a line.	
2.	Position for shouldering the hoseline by facing the nozzle with about 15 feet (5 m) to 20 feet (6 m) of hose between each firefighter.	
3.	Place hose bundles on same shoulders per appropriate shoulder carry	
4.	Position stationary firefighters along the route and on the stairs at critical points (obstructions and corners) to help feed the hose and to keep the hose on the outside of the staircase.	
5.	Advance the hoseline up a flight of stairs against outside wall or rail avoiding sharp bends and kinks and maintaining spacing between firefighters.	
6.	Flake excess hose up the stairway leading to floor above fire to make fire floor advance easier and quicker.	
7.	Lay the hose down the stairway along outside wall to fire floor.	
8.	Last firefighter: After hose supply is depleted, advance and assist nozzle	

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operator in removing kinks pushing hose to outside wall of stairway as necessary.

	Task Steps	
	Down Stairs (Uncharged Hoseline)	
1.	Confirm with officer order to advance a line.	
2.	Position for shouldering the hoseline by facing the nozzle with about 25 feet (7.5 m) to 30 feet (9 m) of hose between each firefighter.	
3.	Place hose bundles on same shoulders per appropriate shoulder carry.	
4.	Position stationary firefighters along the route and at top of the stairs at critical points (obstructions and corners) to help feed the hose and to keep the hose on outside of the staircase.	
5.	Advance the hoseline down a flight of stairs against outside wall or rail, avoiding sharp bends and kinks and maintaining spacing between firefighters.	
6.	Last firefighter: After hose supply is depleted, advance and assist nozzle operator in removing kinks pushing push hose to outside wall of stairway as necessary.	

	Task Steps	
	Up Stairs (Charged Hoseline)	
1.	Confirm with officer order to advance line.	
2.	Advance the line.	
3.	Position stationary firefighters along the route and at top of the stairs at critical points (obstructions and corners) to help feed the hose and to keep the hose on outside of the staircase.	
4.	Advance up the stairs against outside wall or rail, avoiding sharp bends and kinks, maintaining spacing between firefighters, and using working drag to one floor above fire floor.	
5.	Make a large loop on floor above fire floor to provide excess line for fire floor advancement.	
6.	Advance the hose down the stairway to the fire floor, using working drag.	

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7. Last firefighter: After hose supply is depleted, advance and assist nozzle operator in removing kinks pushing hose to outside wall of stairway as necessary.

	Task Steps	
	Down Stairs (Charged Hoseline)	
1.	Confirm with officer order to advance line.	
2.	Use the working drag to advance the line.	
3.	Position stationary firefighters along the route and at top of the stairs at critical points (obstructions and corners) to help feed the hose and to keep the hose on outside of the staircase.	
4.	Advance down the stairs against outside wall or rail, avoiding sharp bends and kinks, maintaining spacing between firefighters, using working drag to one floor above fire floor.	
5.	Second firefighter: After all hose is advanced, advance and assist nozzle operator to push hose to outside wall of stairway.	

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### **Fire Streams**

## Operate a solid stream nozzle (NFPA® 1001, 5.3.10)

#### **Directions**

For this skills evaluation checklist, students will operate a solid stream nozzle. This skill requires students to work with another firefighter and a driver/operator. You should inform students which position to take.

## **Equipment & Materials**

- Full protective clothing including Pump-connected hoseline equipped SCBA
- with solid stream nozzle
- One pumper Targets

	Task Steps	
1.	Position yourselves on same side of hose with one firefighter on nozzle and one as backup.	
2.	Prior to opening nozzle wait for backup firefighter to communicate that they are ready.	
3.	Aim the nozzle at the target indicated by officer.	
4.	Open the nozzle fully.	
5.	Hold the stream on target for 15 seconds.	
6.	Shut off the nozzle so that water hammer is avoided.	

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## Operate a fog-stream nozzle (NFPA® 1001, 5.3.10)

#### **Directions**

For this skills evaluation checklist, students will operate a fog stream nozzle. This skill requires students to work with another firefighter and a driver/operator. You should inform students which position to take. Students will produce a straight stream, a narrow stream, and a wide stream.

## **Equipment & Materials**

- **SCBA**
- One pumper
- Full protective clothing including
   Pump-connected hoseline equipped with adjustable gallonage fog nozzle
  - Targets

	Task Steps	
1.	Position yourselves on same side of hose with one firefighter on nozzle and one as backup.	
2.	Prior to opening nozzle, wait for backup firefighter to communicate that they are ready.	
3.	Twist the stream adjustment ring to adjust the stream pattern to a straight stream then a narrow fog stream (15° to 45°) then to wide fog (45° to 80°). Demonstrate direct, indirect and combination attacks.	
4.	Return the nozzle to a straight stream and aim the nozzle at the target indicated by officer.	
5.	Open the nozzle fully.	
6.	Hold the stream on target for 15 seconds.	
7.	Shut off the nozzle so that water hammer is avoided.	

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#### **Rescue and Extrication**

## Extricate a victim trapped in a motor vehicle. (NFPA® 1001, 6.4.1)

#### **Directions**

For this skills evaluation checklist, students will prepare to extricate a victim, manage hazards, stabilize a vehicle and move or remove the following: vehicle doors, windshields, windows. Various tools, equipment, and techniques are effective. Please follow manufacturer guidelines for the safe and correct operations of tools and equipment as well as departmental guidelines on specific methods to follow. If your department/agency has not established these methods, please refer to the IFSTA manual **Principles of Vehicle Extrication** 2nd edition, for details on techniques. The firefighter gathers the proper equipment and tools and is wearing the appropriate PPE prior to performing extrication tasks.

\*\*This should be conducted by teams of two or more. It is not necessary for every student to complete every portion of this although each <u>team</u> must perform each task listed below. Ideally there should be a car for every 2 teams. \*\*

## **Equipment & Materials**

- Two passenger dummies
- Full protective clothing and eye protection for three to four firefighters
- Hand and power tools
- Wrecked automobile(s) appropriate for skill demonstration

- Safety goggles
- Tarp, blanket, and backboard or other method of protecting victims
- Equipment as required to stabilize vehicle (cribbing, air bags, step blocks, etc.)

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	Task Steps	
	Rescue Preparation	
1.	Confirm order with officer for rescue operation.	
2.	Assess if the scene is safe.	
3.	Stabilize vehicle (i.e. wheel chocks, cribbing, ropes, or other tools) prior to accessing patient.	
4.	Assess the extrication methods that are required to access and extricate patient.	

	Task Steps	
Windshield or Window Removal		
1.	Confirm order with officer to remove windshield or window.	
2.	Before starting work, plan the operation and determine the windows to be removed and the method of removing glass.	
3.	Check the area in which the work is to be done.	
4.	Remove glass to avoid causing further hazards or injuries.	

	Task Steps	
	Removing Vehicle Doors	
1.	Confirm order with officer to remove vehicle doors.	
2.	Plan the operation before starting work.  a. Method of removing door  b. Impact of related systems (side-impact protection system and electrical components)	
3.	Isolate the door from other systems if necessary.  a. Disconnect battery to isolate electric windows, door locks, speakers, and other electric equipment in doors	
4.	Prepare the area for operation of spreaders.	

	Task Steps	
	Removing Vehicle Doors	
5.	Insert the spreader's tips between door and pillar aligned square with pressure points.	
6.	Operate the spreaders until door is separated from hinges/locking mechanism.	
7.	Move the door to area where it will not endanger others or interfere with operations.	